

Attorney Docket No.:  
13270:11

PATENTS  
Customer No. 22444

REMARKS

Applicant believes the application, as amended, is now in condition for allowance.

It is believed no further fee is due with this transmission, however, should a further fee be determined due with this transmission, the Commissioner is authorized to debit Hughes & Luce LLP Deposit Account No. 50-1343.

Respectfully submitted,  
Hughes & Luce



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MARKED-UP COPY OF CLAIMS ACCORDING TO 37 CFR § 1.121(c)(1)(i)

1. A system for condition assessment of a piece of equipment comprising:
  - a virtual condition assessment instrument for measuring a condition of the piece of equipment, comprising:
    - a data capture subsystem for sampling a set of analog signals and converting the set of analog signals to at least one digital signal;
    - a model component, comprising:
      - a filter to estimate disturbances; and
      - a predictor for predicting an expected response;
    - a signal-based component for processing output from [the] said model[-based] component;
    - a classification component for processing output from [the] said signal-based component;
    - a fuzzy logic expert component for combining information from [the] said classification component and [the] said model[-based] component to assess the condition of the piece of equipment; and
  - a virtual end-of-life prediction instrument for measuring an end of life of the piece of equipment, comprising:
    - a condition prediction end-of-life prediction component for analyzing information from [the] said virtual condition assessment instrument to predict condition and end-of-life of the piece of equipment;

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a prediction condition and end-of-life uncertainty estimation component for processing information received from [the] said condition prediction end-of-life prediction component to obtain an estimate of the uncertainty of the condition and end-of-life prediction; and  
an end-of-life panel for displaying the condition and end-of-life prediction and uncertainty.